```
Sequence Listing could not be accepted.
If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).
Reviewer: Durreshwar Anjum
Timestamp: [year=2009; month=2; day=26; hr=11; min=2; sec=3; ms=582; ]
______
Reviewer Comments:
<210> 14
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> misc feature
<222> 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14,
     16, 18, 19
<223> Bases at these positions are RNA
<400> 14
cggtcccgtc cgcctctcgt t
                                                          21
The abvoe <223> response describing RNA bases is incorrect: t's are at
location between 1 and 19: t's are not RNA bases.
<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
```

<221> modified_base

<222> 4

 $\langle 223 \rangle$ n = tetrafluoroindole

<400> 15 ctgntagcct ctggatttga

20

FYI: "n" can only represent a single nucleotide, nothing else. The above explanation of "n" also appears in subsequent sequences.

Validated By CRFValidator v 1.0.3

Application No: 10592919 Version No: 4.0

Input Set:

Output Set:

Started: 2009-02-09 18:36:35.688

Finished: 2009-02-09 18:36:39.753

Elapsed: 0 hr(s) 0 min(s) 4 sec(s) 65 ms

Total Warnings: 27

Total Errors: 0

No. of SeqIDs Defined: 28

Actual SeqID Count: 28

Error code		Error Description									
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(1)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(2)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(3)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(5)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(6)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(7)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(8)
W	251	Found inter	ntio	onally sł	kipped	sec	quence	in S	SEQII) (9)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(10)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(11)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(12)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(13)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(14)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(15)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(16)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(17)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(18)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(19)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(20)
W	213	Artificial	or	Unknown	found	in	<213>	in	SEQ	ID	(21)

Input Set:

Output Set:

Started: 2009-02-09 18:36:35.688

Finished: 2009-02-09 18:36:39.753

Elapsed: 0 hr(s) 0 min(s) 4 sec(s) 65 ms

Total Warnings: 27

Total Errors: 0

No. of SeqIDs Defined: 28

Actual SeqID Count: 28

Error code Error Description

W 213 Artificial or Unknown found in <213> in SEQ ID (22)

This error has occured more than 20 times, will not be displayed

SEQUENCE LISTING

```
<110> Michael, T. Migawa
     Walter F. Lima
     Eric E. Swayze
      Joshua Nichols
      Hongjiang Wu
      Thazha P. Prakash
      Tadeusz Krzysztof Wyrzykiewicz
      Balkrishen Bhat
      Stanley T. Crooke
<120> COMPOSITIONS AND METHODS FOR OPTIMIZING
     CLEAVAGE OF RNA BY RNASE H
<130> CORE0037USA
<140> 10592919
<141> 2009-02-09
<150> PCT/US2005/008428
<151> 2005-03-15
<150> 60/609,516
<151> 2004-09-13
<150> 60/567,016
<151> 2004-04-29
<150> 60/553,646
<151> 2004-03-15
<160> 28
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 1
ctacgctttc cacgcacagt
                                                                   20
<210> 2
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
```

<223> Synthetic oligonucleotide

ttgacctata tttatccaaa tattattgct atgggatttc ctgcagaaag acttgaaggt 1080 gtatacagga acaatattga tgatgtagta aggtttttgg attcaaagca taaaaaccat 1140 tacaagatat acaatctatg tgctgagaga cattatgaca ccgccaaatt taactgcaga 1200 gttgcacagt atccttttga agaccataac ccaccacagc tagaacttat caaacccttc 1260 tgtgaagatc ttgaccaatg gctaagtgaa gatgacaatc atgttgcagc aattcactgt 1320 aaagctggaa agggacggac tggtgtaatg atttgtgcat atttattgca tcggggcaaa 1380 tttttaaagg cacaagaggc cctagatttt tatggggaag taaggaccag agacaaaaag 1440 ggagtcacaa ttcccagtca gaggcgctat gtatattatt atagctacct gctaaaaaat 1500 cacctggatt acagacccgt ggcactgctg tttcacaaga tgatgtttga aactattcca 1560 atgttcagtg gcggaacttg caatcctcag tttgtggtct gccagctaaa ggtgaagata 1620 tattcctcca attcaggacc cacgcggcgg gaggacaagt tcatgtactt tgagttccct 1680 cagccattgc ctgtgtgtgg tgatatcaaa gtagagttct tccacaaaca gaacaagatg 1740 ctcaaaaagg acaaaatgtt tcacttttgg gtaaatacgt tcttcatacc aggaccagag 1800 gaaacctcag aaaaagtgga aaatggaagt ctttgtgatc aggaaatcga tagcatttgc 1860 agtatagagc gtgcagataa tgacaaggag tatcttgtac tcaccctaac aaaaaacgat 1920 cttgacaaag caaacaaaga caaggccaac cgatacttct ctccaaattt taaggtgaaa 1980 ctatacttta caaaaacagt agaggagcca tcaaatccag aggctagcag ttcaacttct 2040 gtgactccag atgttagtga caatgaacct gatcattata gatattctga caccactgac 2100 tctgatccag agaatgaacc ttttgatgaa gatcagcatt cacaaattac aaaagtctga 2160

```
<210> 5
<211> 24
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 5
                                                                    24
atgacaatca tgttgcagca attc
<210> 6
<211> 25
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 6
cgatgcaata aatatgcaca aatca
                                                                    25
<210> 7
<211> 28
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 7
                                                                    28
ctgtaaagct ggaaagggac ggactggt
<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 8
                                                                    20
ccttccctga aggttcctcc
<210> 9
<400> 9
000
<210> 10
<211> 12
<212> RNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
```

```
<400> 10
                                                                    12
cgcgaauucg cg
<210> 11
<211> 12
<212> RNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 11
gcgcuuaagc gc
                                                                    12
<210> 12
<211> 19
<212> RNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<400> 12
cgagaggcgg acgggaccg
                                                                    19
<210> 13
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> misc_feature
<222> 1-19
<223> Bases at these positions are RNA
<400> 13
cgagaggcgg acgggaccgt t
                                                                    21
<210> 14
<211> 21
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> misc_feature
<222> 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14,
      16, 18, 19
<223> Bases at these positions are RNA
```

<400> 14

```
21
cggtcccgtc cgcctctcgt t
<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 4
<223> n = tetrafluoroindole
<400> 15
ctgntagcct ctggatttga
                                                                    20
<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 5
<223> n = tetrafluoroindole
<400> 16
                                                                    20
ctgcnagcct ctggatttga
<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 6
<223> n = tetrafluoroindole
<400> 17
                                                                    20
ctgctngcct ctggatttga
<210> 18
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
```

```
<220>
<221> modified_base
<222> 7
<223> n = tetrafluoroindole
<400> 18
                                                                    20
ctgctancct ctggatttga
<210> 19
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 8
<223> n = tetrafluoroindole
<400> 19
                                                                    20
ctgctagnct ctggatttga
<210> 20
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 10
<223> n = tetrafluoroindole
<400> 20
ctgctagccn ctggatttga
                                                                    20
<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<223> n = N-3-methyl-2'MOE-thymidine
<400> 21
ctgcnagcct ctggatttga
                                                                    20
```

```
<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 17
<223> n = tetrafluoroindole
<400> 22
ctgctagcct ctggatntga
                                                                    20
<210> 23
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 16
<223> n = tetrafluoroindole
<400> 23
ctgctagcct ctgganttga
                                                                    20
<210> 24
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 15
<223> n = tetrafluoroindole
<400> 24
ctgctagcct ctggntttga
                                                                    20
<210> 25
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
```

```
<221> modified_base
<222> 14
<223> n = tetrafluoroindole
<400> 25
                                                                    20
ctgctagcct ctgnatttga
<210> 26
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 13
<223> n = tetrafluoroindole
<400> 26
ctgctagcct ctngatttga
                                                                    20
<210> 27
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 5, 15
<223> n = tetrafluoroindole
<400> 27
                                                                    20
ctgcnagcct ctggntttga
<210> 28
<211> 20
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic oligonucleotide
<220>
<221> modified_base
<222> 16
<223> n = N-3-methyl-2'MOE-thymidine
<400> 28
                                                                    20
ctgctagcct ctgganttga
```